#700743770

Sravanti Cherukuri Assignment #3

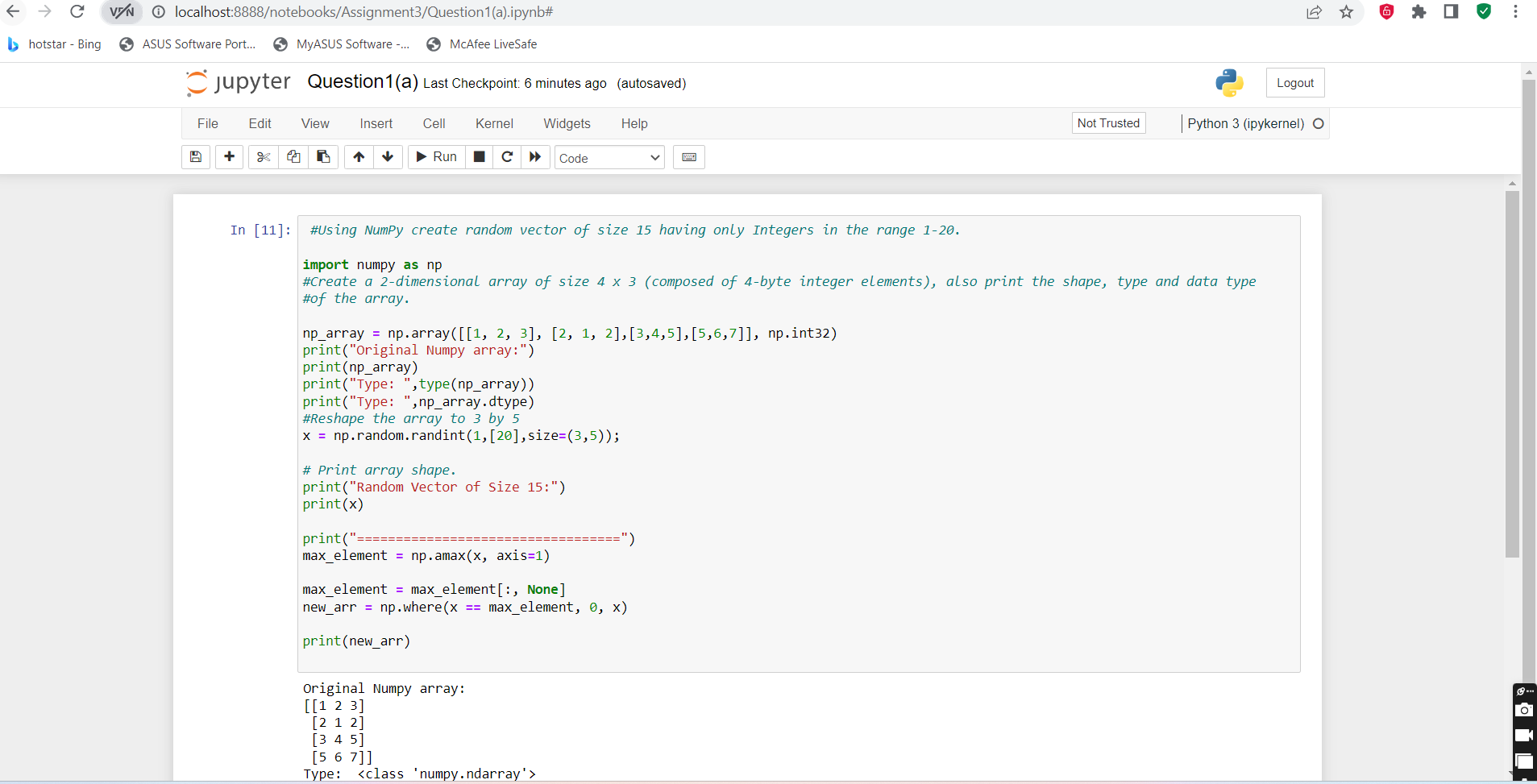
Git hub link: <https://github.com/sxc37701/ML_Assignments/tree/main/Assignment%233>

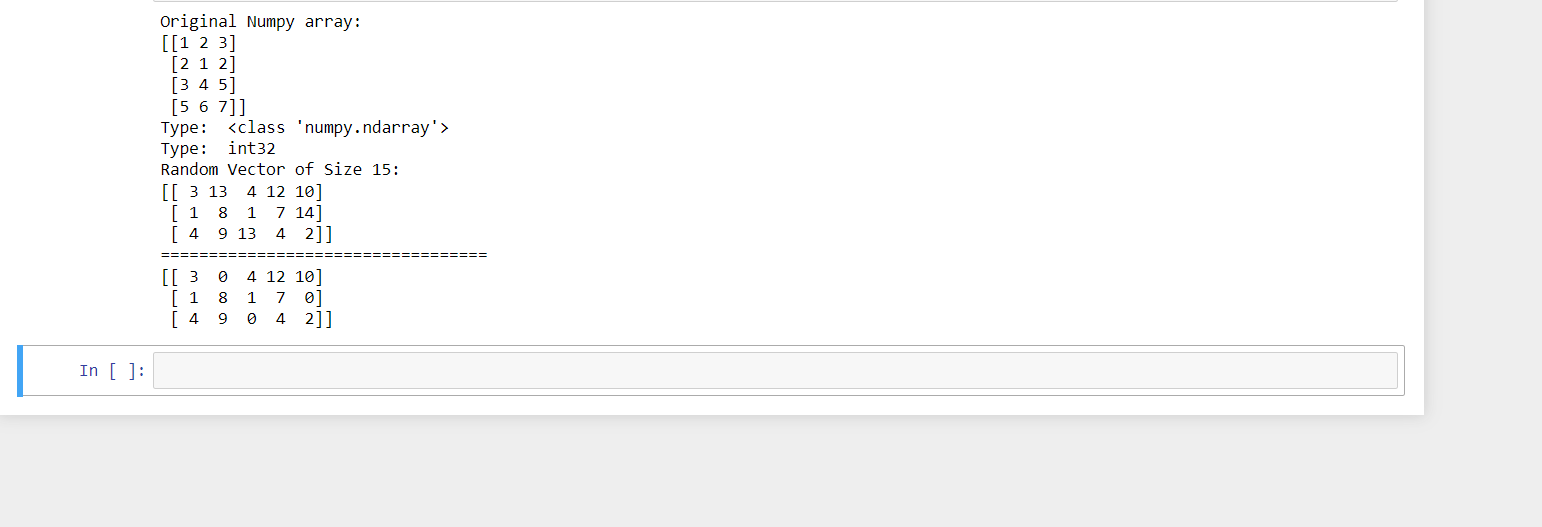
1. **Numpy**:

a. Using NumPy create random vector of size 15 having only Integers in the range 1-20. 1. Reshape the array to 3 by 5 2. Print array shape. 3. Replace the max in each row by 0

Create a 2-dimensional array of size 4 x 3 (composed of 4-byte integer elements), also print the shape, type and data type of the array.

**Code & Output**

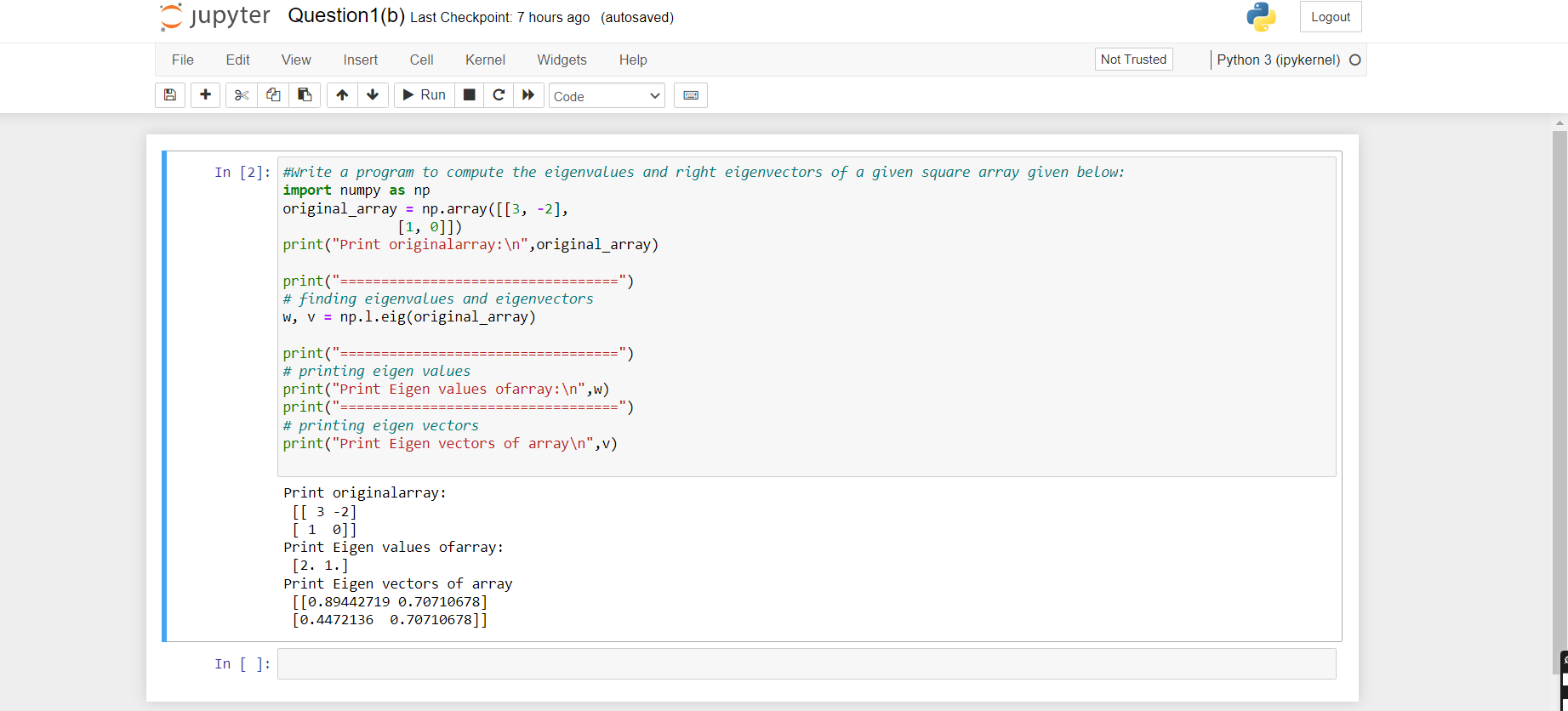
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# **Question 1(b)**

b. Write a program to compute the eigenvalues and right eigenvectors of a given square array given below: [[ 3 -2] [ 1 0]]

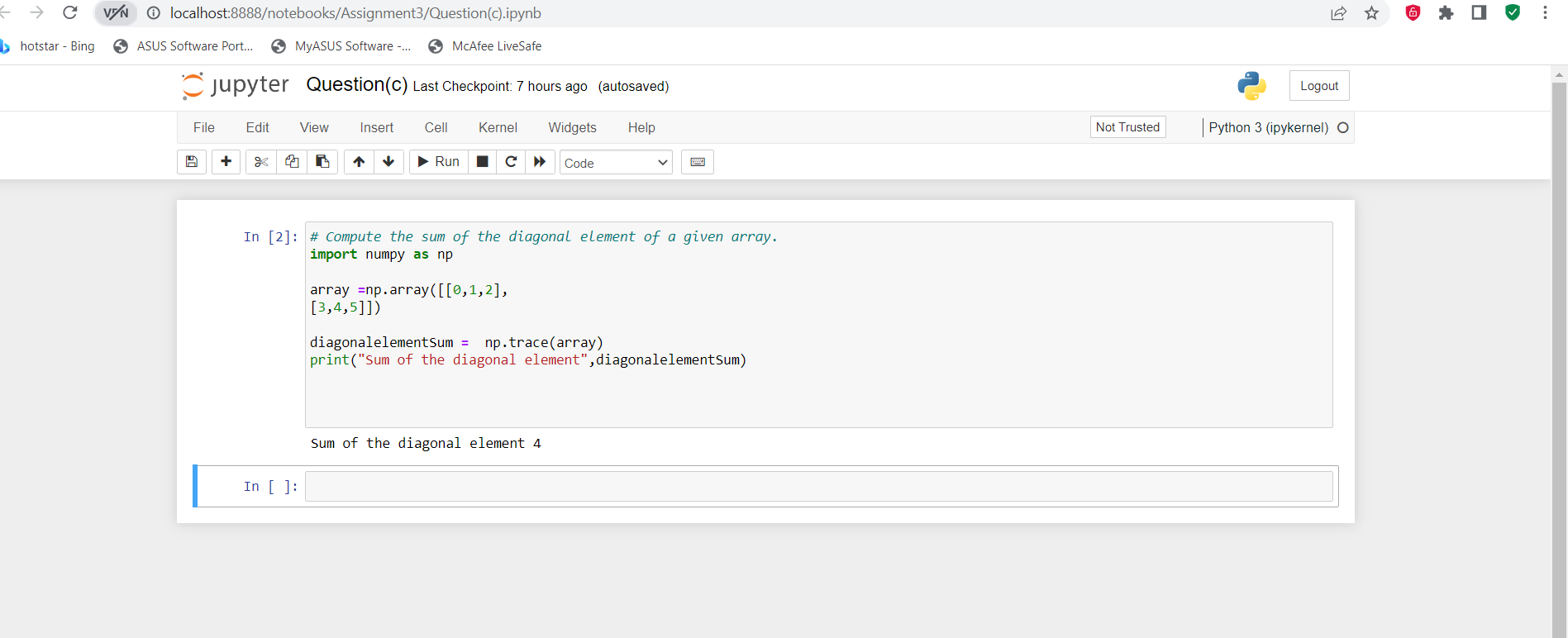
**Code&Output**

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#**Question 1(c)**

c. Compute the sum of the diagonal element of a given array. [[0 1 2] [3 4 5]]

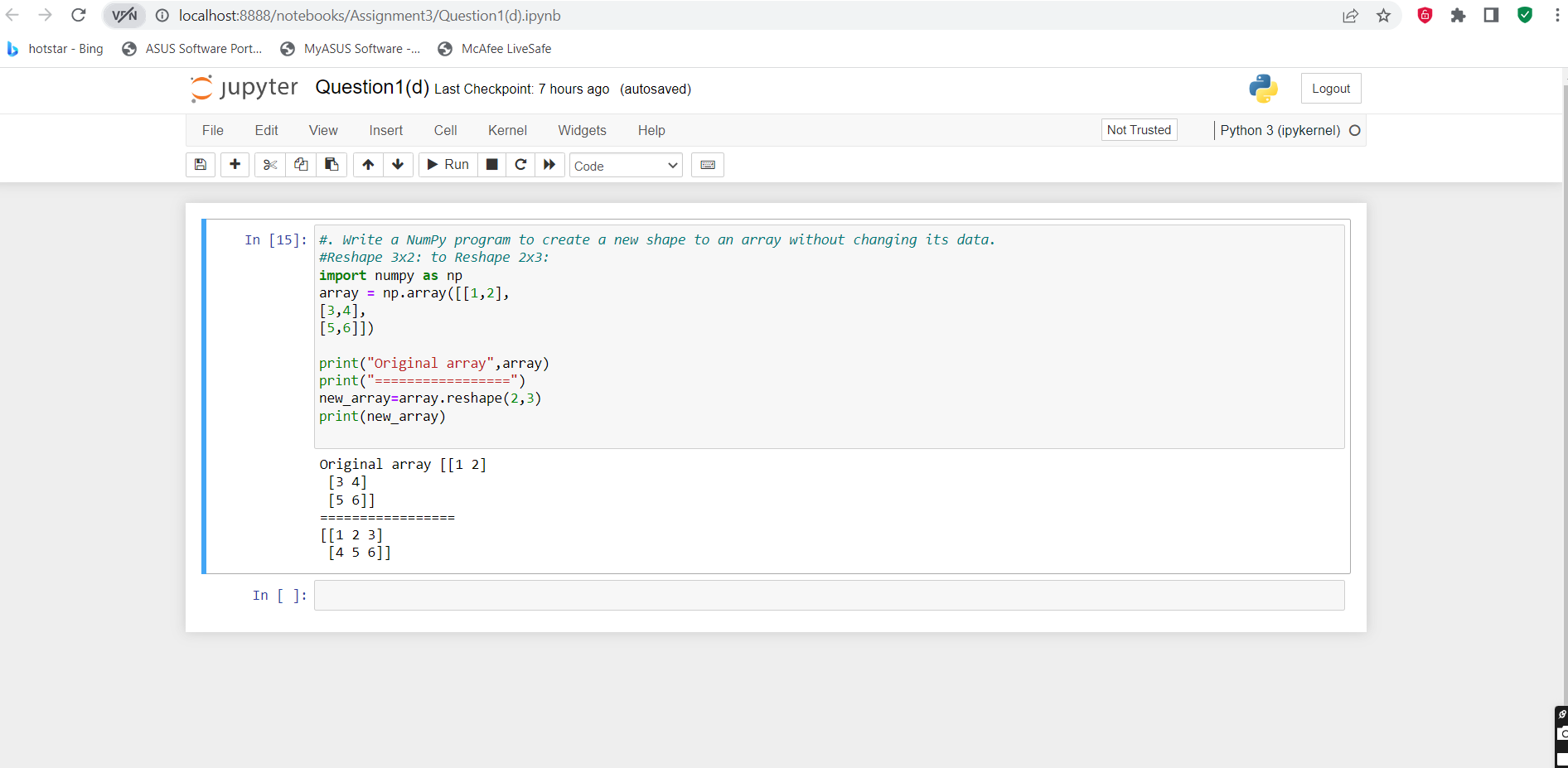
**Code&Output**



#**Question 1(d)**

**Code&Output**

Write a NumPy program to create a new shape to an array without changing its data. Reshape 3x2: [[1 2] [3 4] [5 6]] Reshape 2x3: [[1 2 3] [4 5 6]]



**Question#2**

Matplotlib 1. Write a Python programming to create a below chart of the popularity of programming Languages. 2. Sample data: Programming languages: Java, Python, PHP, JavaScript, C#, C++ Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7

**Code&Output**

